

### **REMARKS**

Claims 14-33 are pending in this application. Reconsideration is requested based on the following remarks.

#### **Claim Rejections - 35 U.S.C. § 103:**

Claims 14, 15, 16, 19, 20, 22, and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Daniel Câmara et al., "A GPS/Ant-like Routing Algorithm for Ad Hoc Networks", IEEE, XP010532722 (hereinafter "Câmara") in view of U.S. Patent No. 6,292,671 to Mansour et al. (hereinafter "Mansour"). The rejection is traversed. Reconsideration is earnestly solicited.

The second and third clauses of claim 14 recite:

Acquiring positional information on the first mobile station, the second mobile station and the further mobile station.

And:

Determining a route for the connection at a central routing device based on the positional information.

Câmara neither teaches, discloses, nor suggests "determining a route for the connection at a central routing device based on the positional information," where the positional information is "on the first mobile station, the second mobile station and the further mobile station," as recited in claim 14. Câmara, in fact, has no "central routing device" at all. Câmara, rather, uses the location information to reduce the number of routing *messages*, as noted graciously in the Office Action at the top of page 3, not for "determining a route for the connection at a central routing device."

The GPSAL algorithm of Câmara, moreover, is based on GPS and mobile software agents modeled on *ants*, not on the positional information of mobile stations, as described in the first full paragraph of the second column at page 1232. Since the GPSAL algorithm of Câmara is based on GPS and mobile software agents modeled on ants, Câmara is not "determining a route for the connection at a central routing device based on the positional information," where the positional information is "on the first mobile station, the second mobile station and the further mobile station," as recited in claim 14.

The GPSAL algorithm of Câmara, moreover, is based on the physical location of the *destination* node and mobile software agents modeled on ants, as described in the second full paragraph of the second column at page 1233, not “on the positional information” of “the first mobile station, the second mobile station and the further mobile station,” as recited in claim 14. Since the GPSAL algorithm of Câmara is based on the physical location of the destination node and mobile software agents modeled on ants, Câmara is not “determining a route for the connection at a central routing device based on the positional information,” where the positional information is “on the first mobile station, the second mobile station and the further mobile station,” as recited in claim 14.

The routing protocol of Câmara, moreover, is based on the physical location of the *destination* host d stored in the routing table, as described in the last partial paragraph of the first column at page 1234, not “on the positional information” of “the first mobile station, the second mobile station and the further mobile station,” as recited in claim 14. Since the routing protocol of Câmara is based on the physical location of the destination host d stored in the routing table, Câmara is not “determining a route for the connection at a central routing device based on the positional information,” where the positional information is “on the first mobile station, the second mobile station and the further mobile station,” as recited in claim 14.

Mansour is not “determining a route for the connection at a central routing device based on the positional information,” where the positional information is “on the first mobile station, the second mobile station and the further mobile station” either, and thus cannot make up for the deficiencies of Câmara with respect to claim 14. Consequently, even if Câmara and Mansour were combined as proposed in the Office Action, claim 14 would not result.

The fifth clause of claim 14 recites:

Transmitting the routing information from the routing device to the first mobile station, the second mobile station and the further mobile station.

Neither Câmara nor Mansour is “transmitting the routing information from the routing device to the first mobile station, the second mobile station and the further mobile station,” as recited in claim 14. The Office Action acknowledges this deficiency with respect to Câmara in section 3, in the first full paragraph at page 3, and attempts to compensate for it by combining Câmara with Mansour, asserting that:

In an analogous art, Mansour discloses transmitting the routing information from

the routing device to the first mobile station, the second mobile station and the further mobile station (col. 6, lines 38-65. Mansour discloses that the DAP then determines the status and current location of each destination mobile phone in the talk-group by sending a status and location query to the HLR 30 via the STP 26. The DAP 76 then signals the BTS 14 via the MSC 24 to provide voice channels to the originating mobile phone 48 and the destination phones 50, 52, 54, 56).

Neither determining the status and current location of each destination mobile phone in the talk-group by sending a status and location query to the HLR 30 via the STP 26, nor signaling the BTS 14 via the MSC 24 to provide voice channels to the originating mobile phone 48 and the destination phones, however, amounts to "transmitting the routing information from the routing device to the first mobile station, the second mobile station and the further mobile station," as recited in claim 14.

Since, in Mansour rather, the DAP 76 determines the status and current location of each destination mobile phone in the talk-group by sending a status and location query to the HLR 30 via the STP 26 as noted in the Office Action, Mansour has no *need* for "transmitting the routing information from the routing device to the first mobile station, the second mobile station and the further mobile station," as recited in claim 14. Consequently, even if Câmara and Mansour were combined as proposed in the Office Action, claim 14 would not result.

The Office Action, in any case, asserts further in section 3, at the bottom of page 3, continuing at the top of page 4, that:

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the mobile host of Daniel Camara et al. by specifically including transmitting the routing information from the routing device to the first mobile station, the second mobile station and the further mobile station, as taught by Mansour, the motivation being in order to route voice packet to each mobile station.

Câmara, however, already routes voice packets to each mobile station. Câmara in fact, is directed to a routing algorithm for a network of mobile hosts that can communicate with each other, as described in the second full paragraph of the first column at page 1232. Câmara is complete in itself. It is submitted, therefore, that persons of ordinary skill in the art who read Câmara at the time the invention was made would not have been motivated to modify Câmara as proposed in the Office Action, since Câmara already routes voice packets to each mobile station. Claim 14 is submitted to be allowable. Withdrawal of the rejection of claim 14 is earnestly solicited.

Claims 15, 16, 19, 20, 22, and 23 depend from claim 14 and add additional distinguishing elements. Claims 15, 16, 19, 20, 22, and 23 are thus also submitted to be allowable. Withdrawal of the rejection of claims 15, 16, 19, 20, 22, and 23 is earnestly solicited.

Claims 17, 18, and 24-33:

Claims 17, 18, and 24-33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Câmara and Mansour in view of U.S. Patent Application Publication No. 2005/0282554 to Shyy et al. (hereinafter "Shyy"). The rejection is traversed. Reconsideration is earnestly solicited.

Claims 17, 18, and 24-30 depend from claim 14 and add further distinguishing elements. Neither Câmara nor Mansour teaches, discloses, nor suggests "acquiring positional information on the first mobile station, the second mobile station and the further mobile station," "determining a route for the connection at a central routing device based on the positional information," and "transmitting the routing information from the routing device to the first mobile station, the second mobile station and the further mobile station," as discussed above with respect to the rejection of claim 14. Shyy does not either, and thus cannot make up for the deficiencies of either Câmara or Mansour with respect to claims 17, 18, and 24-30. Claims 17, 18, and 24-30 are thus submitted to be allowable. Withdrawal of the rejection of claims 17, 18, and 24-30 is earnestly solicited.

Claim 31:

The third, fourth, and fifth clauses of claim 31 recite:

A storage device to store positional information regarding the first mobile station, the second mobile station and the further mobile station.

A central routing device to determine a route for a connection between the first mobile station and the second mobile station via the further mobile station and to generate routing information for the route, the route being determined based on the positional information stored in the storage device.

And:

A transmit unit provided in the routing device to transmit the routing information to the first mobile station, the second mobile station and the further mobile station.

Neither Câmara, Mansour, nor Shyy teaches, discloses, nor suggests "a storage device to store positional information regarding the first mobile station, the second mobile station and the further mobile station," "a central routing device to determine a route for a connection

between the first mobile station and the second mobile station via the further mobile station and to generate routing information for the route, the route being determined based on the positional information stored in the storage device,” and “a transmit unit provided in the routing device to transmit the routing information to the first mobile station, the second mobile station and the further mobile station,” as discussed above with respect to the rejection of claims 17, 18, and 24-30. Claim 31 is thus also submitted to be allowable, for at least those reasons discussed above with respect to the rejection of claims 17, 18, and 24-30. Withdrawal of the rejection of claim 31 is earnestly solicited.

Claim 32:

The second and third clauses of claim 32 recite:

A route generating unit to generate a route for a connection between a first mobile station and a second mobile station by way of at least one further mobile station using positional information for the first mobile station, the second mobile station and the further mobile station.

And:

A transmit unit to transmit routing information corresponding to the route, to the first mobile station, the second mobile station and the further mobile station.

Neither Câmara, Mansour, nor Shyy teaches, discloses, nor suggests “a route generating unit to generate a route for a connection between a first mobile station and a second mobile station by way of at least one further mobile station using positional information for the first mobile station, the second mobile station and the further mobile station,” and “a transmit unit to transmit routing information corresponding to the route, to the first mobile station, the second mobile station and the further mobile station,” as discussed above with respect to the rejection of claims 17, 18, and 24-30. Claim 32 is thus also submitted to be allowable, for at least those reasons discussed above with respect to the rejection of claims 17, 18, and 24-30. Withdrawal of the rejection of claim 32 is earnestly solicited.

Claim 33:

The second and third clauses of claim 33 recite:

A receiver to receive and evaluate connection routing information generated by a central routing device based on positional information for the mobile station, a first mobile unit and a second mobile unit.

And:

A transmitter to transmit data received from the first mobile unit to the second mobile unit according to the connection routing information, to thereby establish a connection between the first and second mobile units.

Neither Câmara, Mansour, nor Shyy teaches, discloses, nor suggests “a receiver to receive and evaluate connection routing information generated by a central routing device based on positional information for the mobile station, a first mobile unit and a second mobile unit,” and “transmitter to transmit data received from the first mobile unit to the second mobile unit according to the connection routing information, to thereby establish a connection between the first and second mobile units,” as discussed above with respect to the rejection of claims 17, 18, and 24-30. Claim 33 is thus also submitted to be allowable, for at least those reasons discussed above with respect to the rejection of claims 17, 18, and 24-30. Withdrawal of the rejection of claim 33 is earnestly solicited.

Claim 21:

Claim 21 was rejected were rejected under 35 U.S.C. § 103(a) as being unpatentable over Câmara and Mansour in view of U.S. Patent Application Publication No. 2003/0081586 to Malladi et al. (hereinafter “Malladi”). The rejection is traversed. Reconsideration is earnestly solicited.

Claim 21 depends from claim 14 and adds further distinguishing elements. Neither Câmara nor Mansour teaches, discloses, nor suggests “acquiring positional information on the first mobile station, the second mobile station and the further mobile station,” “determining a route for the connection at a central routing device based on the positional information,” and “transmitting the routing information from the routing device to the first mobile station, the second mobile station and the further mobile station,” as discussed above with respect to the rejection of claim 14. Malladi does not either, and thus cannot make up for the deficiencies of either Câmara or Mansour with respect to claim 21. Claim 21 is thus submitted to be allowable. Withdrawal of the rejection of claim 21 is earnestly solicited.

**Conclusion:**

Accordingly, in view of the reasons given above, it is submitted that all of claims 14-33 are allowable over the cited references. Allowance of all claims 14-33 and of this entire application is therefore respectfully requested.

Finally, if there are any formal matters remaining after this response, the Examiner is

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invited to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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